# 3. BACKGROUND CONDITIONS

This chapter discusses the operations of the key intersections under Background Conditions. Background Conditions are defined as conditions prior to completion of the proposed development and serve as the basis to identify project impacts. Traffic volumes for Background Conditions comprise existing volumes plus traffic generated by approved developments in the area. The results of the level of service analysis for Background Conditions are presented in this chapter.

## BACKGROUND TRAFFIC ESTIMATES

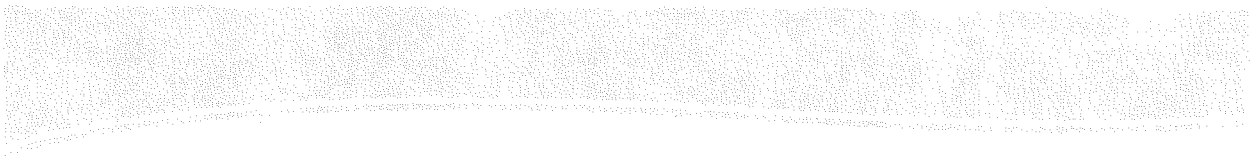
Traffic volumes for Background Conditions were estimated by adding existing volumes and traffic generated by approved but not yet constructed and occupied developments in the study area.

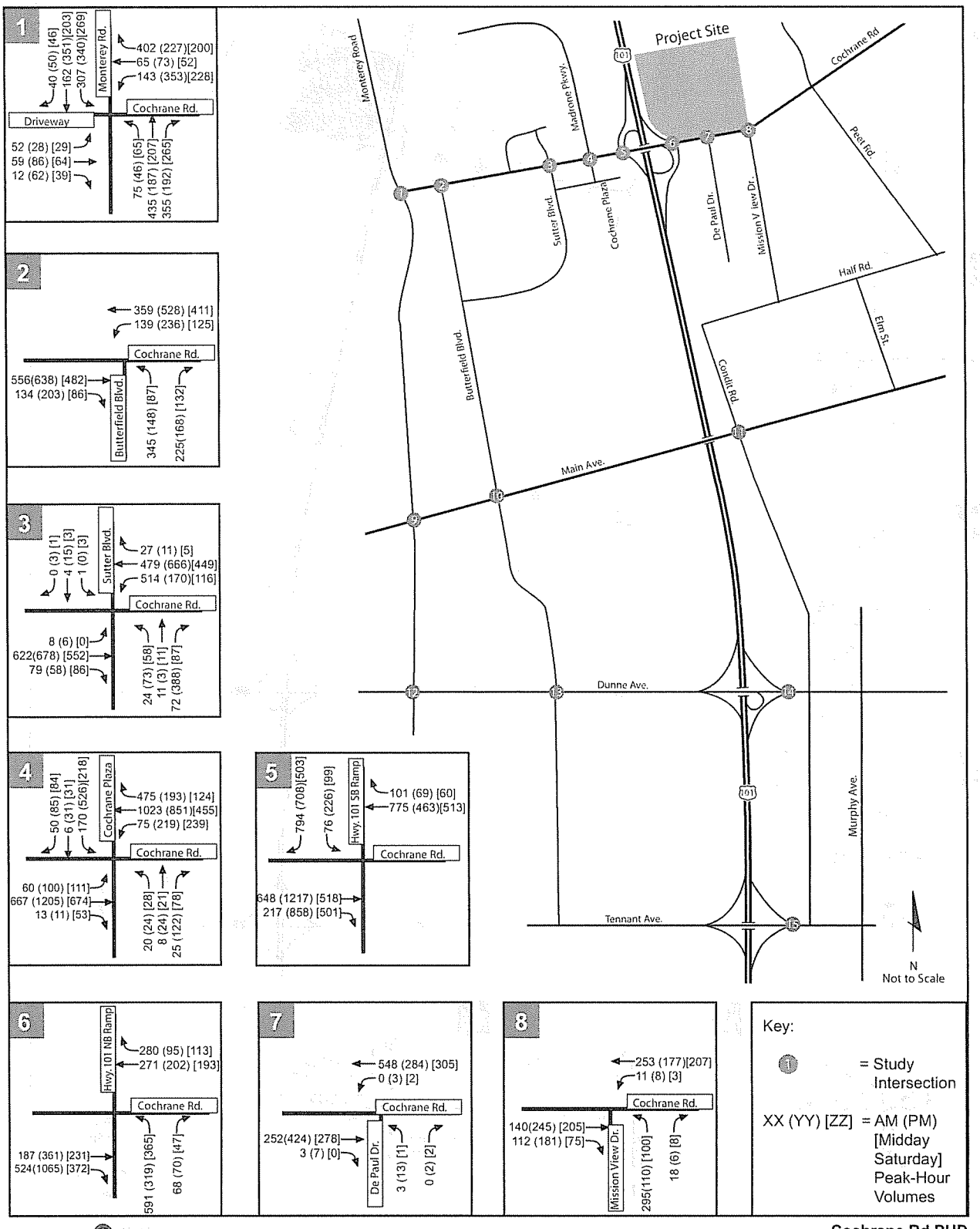
The list of approved projects, presented in Appendix C, was developed with input from City of Morgan Hill Planning staff. The traffic from the approved developments was obtained from traffic impact reports prepared for each development, or estimated with ITE trip generation rates and standard engineering practice. The trips associated with each development were then assigned to the roadway network based on the relative locations of complementary land uses and existing and estimated future travel patterns. Figure 7 illustrates the traffic volumes at the key intersections under Background Conditions.

## BACKGROUND INTERSECTION LEVELS OF SERVICE

Intersection level of service calculations were conducted to evaluate the operating levels of the key intersections under Background Conditions. The results of the intersection level of service analysis for the key intersections are presented in Table 6. Appendix B contains the corresponding LOS calculation sheets.

The intersection of Dunne Avenue and Monterey Road is projected to degrade to LOS D, an unacceptable level, during the PM peak hour under Background Conditions. The remaining intersections are projected to operate at acceptable levels (LOS D+ or better for non-freeway and LOS E for freeway intersections) during each peak hour period.



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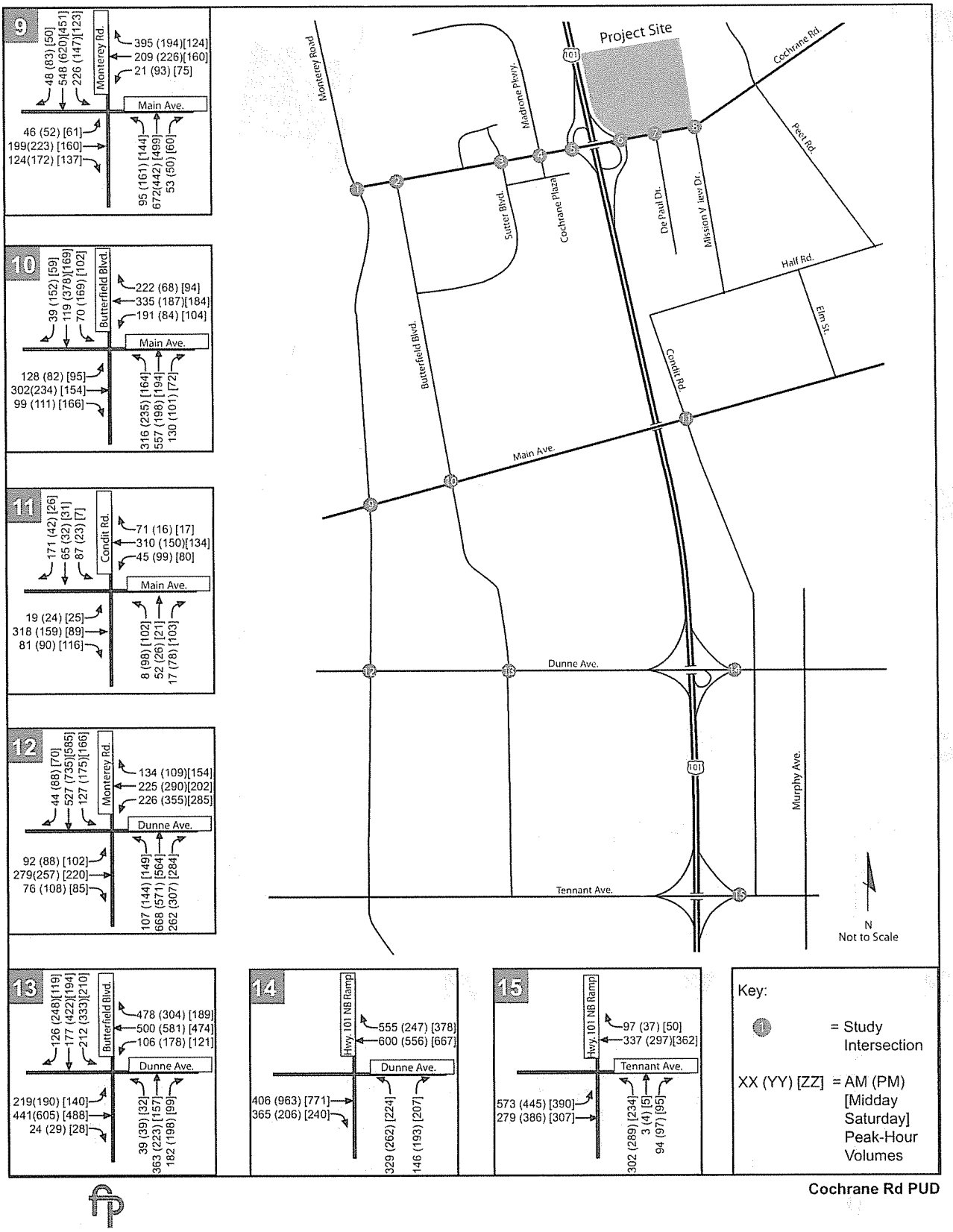
## BACKGROUND INTERSECTION PEAK-HOUR VOLUMES

**Figure 7A**

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## BACKGROUND INTERSECTION PEAK-HOUR VOLUMES

**Figure 7B**

**TABLE 6**
**BACKGROUND INTERSECTION LEVELS OF SERVICE**

| Intersection | Peak Hour[1] | Intersection Control | Delay[2] | LOS[3] |
|---|---|---|---|---|
| 1. Cochrane Road/Monterey Road | AM | Signal | 20.5 | C+ |
| | PM | | 25.7 | C |
| | SAT | | 24.4 | C |
| 2. Cochrane Road/Butterfield Boulevard | AM | Signal | 13.2 | B |
| | PM | | 12.3 | B |
| | SAT | | 10.9 | B+ |
| 3. Cochrane Road/Sutter Boulevard | AM | Signal | 20.6 | C+ |
| | PM | | 15.4 | B |
| | SAT | | 13.6 | B |
| 4. Cochrane Road/Cochrane Plaza | AM | Signal | 18.7 | B- |
| | PM | | 28.1 | C |
| | SAT | | 23.4 | C |
| 5. Cochrane Road/Southbound US 101 Ramp | AM | Signal | 13.3 | B |
| | PM | | 14.6 | B |
| | SAT | | 19.9 | B- |
| 6. Cochrane Road/Northbound US 101 Ramp | AM | Signal | 11.3 | B+ |
| | PM | | 10.9 | B+ |
| | SAT | | 10.8 | B+ |
| 7. Cochrane Road/DePaul Drive | AM | Stop Sign | 12.0 | B |
| | PM | | 12.6 | B |
| | SAT | | 11.2 | B |
| 8. Cochrane Road/Mission View Drive | AM | Stop Sign | 16.9 | C |
| | PM | | 12.7 | B |
| | SAT | | 12.3 | B |
| 9. Main Avenue/Monterey Road | AM | Signal | 27.8 | C |
| | PM | | 24.3 | C |
| | SAT | | 22.0 | C+ |
| 10. Main Avenue/Butterfield Boulevard | AM | Signal | 38.2 | D+ |
| | PM | | 37.5 | D+ |
| | SAT | | 31.9 | C |
| 11. Main Avenue/Condit Road | AM | Signal | 12.3 | B |
| | PM | | 9.8 | A |
| | SAT | | 9.9 | A |
| 12. Dunne Avenue/Monterey Road | AM | Signal | 37.9 | D+ |
| | PM | | 39.5 | D |
| | SAT | | 30.9 | C |
| 13. Dunne Avenue/Butterfield Boulevard | AM | Signal | 35.3 | D+ |
| | PM | | 37.6 | D+ |
| | SAT | | 30.3 | C |
| 14. Dunne Avenue/ Northbound US 101 Ramp | AM | Signal | 15.5 | B |
| | PM | | 12.8 | B |
| | SAT | | 9.9 | A |
| 15. Tennant Avenue/Northbound US 101 Ramp | AM | Signal | 25.5 | C |
| | PM | | 22.0 | C+ |
| | SAT | | 19.9 | B- |

Notes:
1 AM = Morning peak-hour, PM = Evening peak-hour, SAT = Saturday midday peak-hour.
2 Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections using methodology described in the *2000 Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County Conditions. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. LOS calculations conducted using the TRAFFIX level of service analysis software package.
3 LOS = Level of service